

Claim Listing

1. Canceled.
2. (previously amended) An article of manufacture comprising a hydrophobic polymeric substrate having an adherent, firmly attached hydrophilic coating of solubilized starch, said coating having a thickness of approximately 1 micrometer or less.
3. (original) The article of Claim 2, wherein said hydrophobic polymeric substrate is a film or sheet.
4. (original) The article of Claim 2, wherein said hydrophobic substrate is a three-dimensional object.
5. (original) The article of Claim 2, wherein said hydrophobic polymeric substrate is a material selected from the group consisting of polyethylene, polypropylene, polystyrene, polyester, and polyamide.

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6. (original) The article of Claim 2, wherein said hydrophobic polymeric substrate is a material comprising polyethylene.

7. (original) The article of Claim 2, wherein said starch is selected from the group of corn starch, wheat starch, rice starch, sorghum starch, potato starch, cassava starch and tapioca starch.

8. (original) The article of Claim 2, wherein said starch is selected from the group of waxy starch, high amylose starch, and a starch comprising about 25% amylose by weight.

9. (original) The article of Claim 2, wherein said starch coating on said polymeric substrate is present in an amount of at least about 0.01 mg starch/cm² of polymeric substrate.

10. (original) The article of Claim 2, wherein said starch coating on said polymeric substrate is present in an amount of at least about 0.02 mg starch/cm² of polymeric substrate.

11. (previously amended) The article of Claim 2, wherein

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said starch coating on said polymeric substrate is present in an amount of less than about 1 mg starch/cm² of polymeric substrate.

12. (previously amended) The article of Claim 2, wherein said starch coating on said polymeric substrate is present in an amount of less than about 0.08 mg starch/cm² of polymeric substrate.

13. (currently amended) A method for rendering hydrophilic the surface of a hydrophobic polymeric substrate comprising the steps:

- a. contacting said substrate with a solubilized starch at a temperature above the gelatinization temperature of the starch; and
- b. holding said substrate in contact with the solubilized starch until the temperature of the starch cools to below the gelatinization temperature, whereby said starch forms on said substrate an adherent, firmly attached hydrophilic coating having a thickness of approximately 1 micrometer or less.

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14. (original) The method of Claim 13, wherein said solubilized starch is in aqueous solution.

15. (original) The method of Claim 14, wherein the starch concentration of said solution is in the range of about 0.5-5% by weight.

16. (original) The method of Claim 13, wherein said solubilized starch is jet-cooked starch.

17. (original) The method of Claim 13, wherein said hydrophobic polymeric substrate is a material selected from the group consisting of polyethylene, polypropylene, polystyrene, polyester, and polyamide.

18. (original) The method of Claim 13, wherein said hydrophobic polymeric substrate is a material comprising polyethylene.

19. (original) The method of Claim 13, wherein said starch

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is selected from the group of corn starch, wheat starch, rice starch, sorghum starch, potato starch, cassava starch, tapioca starch and flours thereof.

20. (original) The method of Claim 13, wherein said starch is selected from the group of waxy starch, high amylose starch, and a starch comprising about 25% amylose by weight.

21. (previously added) The article of Claim 2, wherein said solubilized starch is totally solubilized.

22. (previously added) The article of Claim 2, wherein said solubilized starch is jet cooked starch.

23. (previously added) The article of Claim 2, wherein said hydrophilic coating of solubilized starch consists essentially of starch or cereal flour.

24. (previously added) The article of Claim 2, wherein said hydrophilic coating of solubilized starch consists of nodules.